

Applic. No. 10/763,027
Amdt. dated April 28, 2008
Reply to Office action of February 26, 2008

Remarks/Arguments:

Reconsideration of the application is requested.

Claims 1-27 remain in the application. Claim 1 has been amended.

In item 2 on page 2 of the above-identified Office action, claim 1 has been rejected as failing to comply with the written description requirement under 35 U.S.C. § 112.

More specifically, the Examiner has stated that the specification did not disclose that the surface-specific heat capacity of the contraction limiter is greater than that of the matrix. Claim 1 has been amended so as to facilitate prosecution of the application. Therefore, the rejection has been overcome.

Support for the changes is found on page 5, lines 14-23 of the specification.

It is accordingly believed that the claims meet the requirements of 35 U.S.C. § 112, first paragraph. Should the Examiner find any further objectionable items, counsel would

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appreciate a telephone call during which the matter may be resolved. The above-noted changes to the claims are provided solely for cosmetic or clarificatory reasons. The changes are not provided for overcoming the prior art nor for any reason related to the statutory requirements for a patent.

In item 4 on page 3 of the above-identified Office action, claims 1-6, 8, 12-14, and 21-23 have been rejected as being obvious Ota et al. (U.S. Patent No. 5,486,338) (hereinafter "Ota") in view of Cheung (U.S. Patent No. 4,193,793) under 35 U.S.C. § 103.

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, *inter alia*:

the contraction limiter having a surface-specific heat capacity between a surface-specific heat capacity of the matrix and the housing, such that the contraction limiter

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begins to deform only in a higher temperature range in comparison with the matrix and begins to deform in a lower temperature range in comparison with the housing.

Claim 1 also calls for, *inter alia*:

at least one contraction limiter configured for imparting an outwardly directed tensile stress in at least one part of the matrix for preventing the average initial diameter of the matrix from decreasing by more than 5% during and/or after a thermal stress.

The Ota reference discloses the joining of a honeycomb body and a casing to create a structure which is flexible in the radial direction to mitigate thermal stress and fatigue due to a thermal cycle or repeated heating and cooling and which shows a good durability (column 2, lines 44 to 50). Ota does not disclose the specific heat capacity of any components of the honeycomb structure.

Cheung does not disclose a relation of a surface specific heat capacity of a contraction limiter to a matrix or a casing. Cheung does not even disclose a contraction limiter or a spacer positioned between a honeycomb body and a casing.

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It is a requirement for a *prima facie* case of obviousness, that the prior art references must teach or suggest all the claim limitations.

As seen from the above-given remarks, the references do not show or suggest the contraction limiter having a surface-specific heat capacity between a surface-specific heat capacity of the matrix and the housing such that the contraction limiter begins to deform only in a higher temperature range in comparison with the matrix and begins to deform in a lower temperature range in comparison with the housing, as recited in claim 1 of the instant application.

Ota does not disclose the specific heat capacity of any components of the honeycomb structure.

Cheung does not disclose a relation of a surface specific heat capacity of a contraction limiter to a matrix or a casing. Cheung does not even disclose a contraction limiter or a spacer positioned between a honeycomb body and a casing. Accordingly, Cheung does not make up for the deficiencies of Ota.

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The references applied by the Examiner do not teach or suggest all the claim limitations. Therefore, it is believed that the Examiner has not produced a *prima facie* case of obviousness.

It is a requirement for a *prima facie* case of obviousness, that the prior art references must teach or suggest all the claim limitations.

The references do not show or suggest at least one contraction limiter configured for imparting an outwardly directed tensile stress in at least one part of the matrix for preventing the average initial diameter of the matrix from decreasing by more than 5% during and/or after a thermal stress, as recited in claim 1 of the instant application.

The references applied by the Examiner do not teach or suggest all the claim limitations. Therefore, it is believed that the Examiner has not produced a *prima facie* case of obviousness.

Since claim 1 is allowable over Ota in view of Cheung, dependent claims 2-6, 8, 12-14, and 21-23 are allowable over Ota in view of Cheung as well.

In item 5 on page 6 of the Office action, claims 1-20 and 24-27 have been rejected as being obvious over Cyron (U.S. Patent

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No. 4,795,615) in view of Cheung (U.S. Patent No. 4,193,793)
under 35 U.S.C. § 103.

Cyron discloses that spacers positioned between the casing and the honeycomb body permit a lengthwise expansion of the catalyst carrier body relative to the tubular jacket. Therefore, the catalyst body is attached to the tubular jacket using only one point, thereby allowing a lengthwise expansion. Cyron is silent with respect to a surface specific heat capacity of the spacers in relation to the casing or to the honeycomb body.

As noted above, Cheung does not disclose a relation of a surface specific heat capacity of a contraction limiter to a matrix or a casing. Cheung does not even disclose a contraction limiter or a spacer positioned between a honeycomb body and a casing.

It is a requirement for a *prima facie* case of obviousness, that the prior art references must teach or suggest all the claim limitations.

As seen from the above-given remarks, the references do not show or suggest the contraction limiter having a surface-specific heat capacity between a surface-specific heat

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capacity of the matrix and the housing such that the contraction limiter begins to deform only in a higher temperature range in comparison with the matrix and begins to deform in a lower temperature range in comparison with the housing, as recited in claim 1 of the instant application.

Cyron does not disclose the specific heat capacity of any components of the honeycomb structure.

Cheung does not disclose a relation of a surface specific heat capacity of a contraction limiter to a matrix or a casing. Cheung does not even disclose a contraction limiter or a spacer positioned between a honeycomb body and a casing. Accordingly Cheung does not make up for the deficiencies of Cyron.

The references applied by the Examiner do not teach or suggest all the claim limitations. Therefore, it is believed that the Examiner has not produced a *prima facie* case of obviousness.

It is a requirement for a *prima facie* case of obviousness, that the prior art references must teach or suggest all the claim limitations.

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The references do not show or suggest at least one contraction limiter configured for imparting an outwardly directed tensile stress in at least one part of the matrix for preventing the average initial diameter of the matrix from decreasing by more than 5% during and/or after a thermal stress, as recited in claim 1 of the instant application.

The references applied by the Examiner do not teach or suggest all the claim limitations. Therefore, it is believed that the Examiner has not produced a *prima facie* case of obviousness.

Since claim 1 is allowable over Cyron in view of Cheung, dependent claims 2-20 and 24-27 are allowable over Cyron in view of Cheung as well.

Moreover, the following further remarks pertain the Examiner's allegation on pages 3 and 6 of the Office action that "regarding limitations recited in claim 1 which are directed to a manner of operating the disclosed system, neither the manner of operating a disclosed device nor material or article worked upon further limit an apparatus claim."

It is respectfully noted that the Examiner's allegation is entirely misplaced. Specifically, claim 1 does not recite a manner in which the system is operated. Claim 1 does not

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recite an article worked upon. Instead, claim 1 merely defines the behavior of structural elements when exposed to certain external factors. The characteristics of the structural elements that allow them to perform as recited in claim 1, are present in the structural elements whether or not they are subjected to the conditions recited in the claims. The conditions merely provide for a comparison of the structural elements. The material properties that allow for the response of the structural elements, are present in the structural elements are always present in the elements even when the honeycomb body is sitting on a shelf and is not subjected to any external conditions. In other words, the method of operating the honeycomb body is not what is claimed, instead, what is claimed are material properties that will allow the structural elements to react in a certain way when and if they are subjected to the recited conditions.

Accordingly, the claim does not require that the device be operated, only that it has the structural properties to respond in a specific way if and when it does. Furthermore, the claims do not recite that the honeycomb body works on a material or article. Therefore, it is respectfully noted that the Examiner's allegation with respect to limitations regarding the operation of the disclosed system, are misplaced.

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Moreover, on pages 11 and 12 of the Office action the Examiner alleges that "the limitation regarding the degree of thermal expansion/contraction is dependent on the temperature variation of the apparatus, and is therefore viewed as a limitation which is directed toward a manner of operating said apparatus and is not considered to confer patentability to the apparatus claim."

It is respectfully noted that the Examiner is in error.

Particularly, as seen from the above-given remarks, the claim language of the instant application merely provides a comparison of the structural elements. While it is true that the degree of thermal expansion/contraction is dependent on the temperature variation of the apparatus, the material properties which provide for degree of thermal expansion/contraction are always present in the structural elements. Accordingly, the material properties are present in the structural elements if they face the temperature variations or not. Therefore, it is respectfully noted that the Examiner's allegation with respect to a limitation directed toward a manner of operating the apparatus, is in error.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either

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show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-10 and 12-27 are solicited.

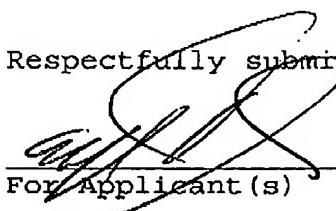
In the event the Examiner should still find any of the claims to be unpatentable, counsel respectfully requests a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made.

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Please charge any other fees which might be due with respect
to Sections 1.16 and 1.17 to the Deposit Account of Lerner
Greenberg Stemer LLP, No. 12-1099.

Respectfully submitted,


For Applicant(s)

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